## ABSTRACT OF THE DISCLOSURE

To provide a bearing assembly having a temperature sensor built therein, in which the accuracy of detection of the abnormal temperature is increased, the number of component parts is reduced and the productivity can be increased, a rolling bearing assembly 1 includes a sealing member 7 secured to a stationary bearing ring and a temperature sensor 13 is secured to the sealing member 7. The stationary bearing ring is an inner race 2 if the bearing assembly 1 is of an outer race rotating type. The sealing member 7 is made up of a core metal 9 and an elastic member 10 made of a rubber or resin. The temperature sensor 13 is fixed to the core metal 9 of the sealing member 7 either by means of an insert molding of the elastic member 10 or soldering after forming the sealing member 7. The temperature sensor 13 is in the form of a chip-type laminar thermistor.